

ABSTRACT OF THE DISCLOSURE

An operator control system for controlling the operation of an electric motor driven door or gate operator unit having a speed reducing gear drive mechanism and a brake unit for positive braking of the motor output shaft.

- 5 A programmable microcontroller is operably connected to a motor drive circuit with interlock relays to energize the operator unit drive motor for rotation in opposite directions. The motor drive circuit is interconnected with a motor watchdog circuit to effect motor shutdown if the
- 10 microcontroller malfunctions. The motor drive circuit is operably connected to a brake release circuit to prevent motor operation unless the electrically operated brake is energized to release braking of an operator output shaft. The microcontroller receives input signals from manually or
- 15 radio-controlled door open, close and stop switches and from door position limit switches. The microcontroller is connected to a non-volatile memory for storing door mid-stop time delay values, braking rates, a door position limit overrun signal, a door cycle count, door reversals upon
- 20 receiving an obstruction detector signal and error codes associated with door operator and control system malfunctions. The door may be operated to provide a down position limit overrun, progressive braking and a mid-stop set position by time based signals. The electrically
- 25 operated brake may be controlled on a variable duty cycle to provide smooth braking action in both directions of movement of the door.

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